SCHOOL OF CIVIL ENGINEERING



JOINT HIGHWAY RESEARCH PROJECT

JHRP-75-16

TRAFFIC SPEED REPORT NO. 93

A.A. Gadallah G.K. Stafford

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PUPDUE UNIVERSITY STATE HIGHWAY COMMISSION



Interim Report

TRAFFIC SPEED REPORT NO. 93

TO: J. F. McLaughlin, Director

July 30, 1975

Joint Highway Research Project

Project: C-36-10C

FROM: H. L. Michael, Associate Director

Joint Highway Research Project File: 8-3-3

The attached "Traffic Speed Report No. 93" is a report of the rural traffic speeds on Indiana highways as found in the April-June 1975 period. Beginning with this report an annual report will be made in the July-September period each year and report using a portion of the same stations will be made for each calendar quarter of the year. This is the first of these latter reports.

The primary findings of this report is that speeds of cars and trucks were very similar during the April-June 1975 period to those found in the July-September 1974 period (1974 annual report period). Details of the speed results are provided.

Beginning with the next report, this Study will be a part of the FY 1976 Work Program of the ISHC and will utilize HPR, Part I, funds.

Copies of this report are requested for release to the Indiana State Police, the Indiana Traffic Safety Council and the Indiana Department of Traffic Safety and Vehicle Inspection as a normal procedure for these reports. Copies will also be sent to the Federal Highway Administration and several departments within the ISHC. The report is presented for the record and for release as noted.

Respectfully submitted,

Thursda & Muchal

Harold L. Michael Associate Director

HLM:ms

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Interim Report TRAFFIC SPEED REPORT NO. 93

bу

A. A. Gadallah Graduate Instructor in Research

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and

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Joint Highway Research Project

Project No.: C-36-10C

File No.: 8-3-3

Engineering Experiment Station
Purdue University
In Cooperation with
Indiana State Highway Commission

Purdue University West Lafayette, Indiana July 30, 1975



ABSTRACT

This report is another on the continuing study of speeds of vehicles on rural Indiana Highways. Observations of spot speeds were taken on interstate, four-lane and two-lane highways throughout the state during the months of May and June 1975.

Analysis of the speeds showed the overall average speed for passenger cars was 57.6 miles per hour. The overall average speed for heavy trucks was 55.5 miles per hour. This was about the same overall average speed for passenger cars and for trucks, as compared to the data collected in June-September 1974 (Speed Report No. 92). No trend of increase in travel speeds is as yet apparent under the 55 mph maximum speed limit.

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TRAFFIC SPEED REPORT NO. 93

This report is an analysis of spot speed observations made during May and June 1975. All observations were made of free-flowing vehicles on level, tangent sections of rural highways during daylight and under favorable conditions. Six stations were studied from the same locations on selected Federal and State highways as used for many years.

Stations were classified as two-lane, four-lane, or interstate highways. A representative sample of spot speeds was obtained at each of the two stations in each classification. The site locations of the annual stations were as follows: (See Figure A)

Interstate Highways

* 1.	1-69	3.3 miles south of Junction SR 18
2.	I - 65	1.0 miles west of Junction SR 334
* 3.	1-74	1.0 miles each of Junction of Post Road
4.	I-65	7.5 miles north of Junction of SR 160
		Four Lane Highways
* 5.	U.S. 31	1.2 miles south of Junction of SR 38
6.	U.S. 52	1.0 mile east of Junction of SR 28
7.	U.S. 41	1.0 mile north of South Junction of SR 2
* 8.	v.s. 52	1.0 mile west of Klondike
		Two Lane Highways
* 9.	U.S. 35	1.5 miles each of Junction of I-69
10.	S.R. 73	2.0 miles south of Chalmers
11.	U.S. 31	3.0 miles south of Rochester
*12.	S. R. 25	0.7 miles west of Americus

^{*}Stations used in this study.



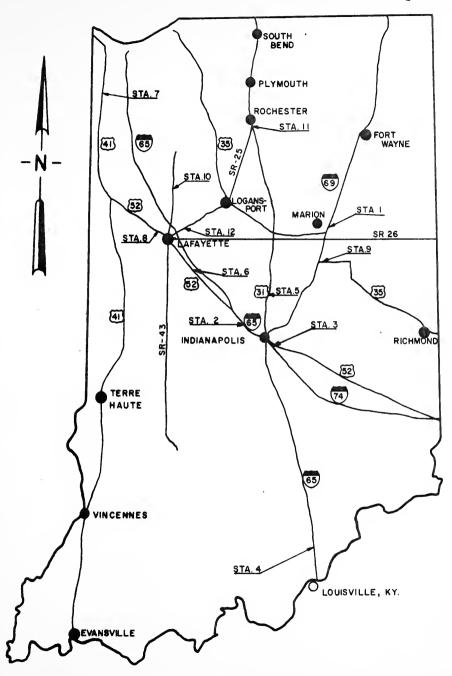


FIG. A - LOCATIONS OF SPEED-STUDY STATIONS

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The vehicles were classified as Indiana or Non-Indiana Passenger Cars and Light (less than 5000 lbs. gross weight) or Heavy (equal to or more than 5000 lbs. gross weight) Trucks. The analysis was performed as classified and combined, passenger cars or trucks.

The maximum speed limit in Indiana is 55 miles per hour, both on Interstate and other rural highways.

Equipment and Field Procedure

The observations for this study were obtained by use of an "Electromatic" Radar Speed Meter. The meter was placed approximately four feet from the edge of the pavement at angles less than 10° with the highway center line. No corrections of speeds were necessary at these small angles. At the beginning of the study the accuracy of the meter was checked and any constant discrepancy of readings was corrected accordingly.

RESULTS OF ANALYSIS

The data collected were analyzed and are summarized in Tables 1 to 6 in the Appendix. Tables 7, 8 and 9 summarize the data for interstate, four lane, and two lane highways, respectively. Table 10 is the summary for all highways. Tables 11, 12 and 13 are summaries in an FHWS format which is desired. The average speed for each classification of vehicles on each type of highway for this study was as follows: (June-September 1974 comparable speeds are shown in parentheses).

	Interstate	Other Four Lane	Two-Lane
Passenger Cars:			
Indiana	57.4 (58.3)	58.6 (58.0)	57.1 (56.8)
Non-Indiana	57.4 (59.3)	58.4 (57.9)	57.7 (55.9)
All Passenger Cars	57.4 (58.6)	58.6 (58.0)	57.1 (56.7)
85 Percentile (all)	60.9 (62.6)	63.3 (63.1)	62.3 (61.8)
Trucks:			
Less than 5000 lbs.	56.6 (56.7)	56.9 (56.8)	55.6 (55.3)
5000 lbs. or more	56.7 (56.4)	55.4 (54.4)	53.6 (54.5)
All Vehicles:			
Average	57.10	57.77	56.28
85 Percentile	60.90	62.80	61.80

The percent of vehicles exceeding the speed limit (55 mph) for each classification of vehicles and each type of highway was as follows:

	Interstate	Other Four Lane	Two Lane
Passenger Cars:			
Indiana	69.51	73.07	61.20
Non-Indiana	69.19	77.36	63.81
All Passenger Cars	69.43	73.54	61.46
Trucks:			
Less than 5000 lbs.	63.55	59.83	50.18
5000 lbs. or more	62.41	54.46	37.84
All Vehicles:	67.20	68.29	55.68

The percent of vehicles traveling more than 5 mph above the speed limit (exceeding 60 mph) for each case was as follows:

	Interstate	Other Four Lane	Two Lane
Passenger Cars:			
Indiana	21.67	32.91	25.21
Non-Indiana	21.35	31.13	23.81
All Passenger Cars	21.59	32.72	25.07
Trucks:			
Less than 5000 lbs.	18.06	27.62	19.79
5000 lbs. or more	16.47	16.07	8.49
All Vehicles:	20.07	29.28	21.48

The percent of vehicles traveling more than 10 miles per hour above the speed limit (exceeding 65 mph) for each case was as follows:

	Interstate	Other Four Lane	Two Lane
Passenger Cars:			
Indiana	4.03	10.24	7.26
Non-Indiana	4.32	9.43	4.76
All Passenger Cars	4.11	10.15	7.02
Trucks:			
Less than 5000 lbs.	3.87	8.79	6.71
5000 lbs. or more	2.55	1.79	.77
All Vehicles:	3.77	7.62	5.96

Summary and Conclusions

The overall average speeds in this study were found for passenger cars to be 57.6 mph. The overall average speed for heavy trucks was 55.5 mph. These results are about the same as those obtained in June-September 1974.

A comparison of speeds as found on the several types of highway for passenger cars and trucks of the 1975 data with that of 1974 and that obtained at a portion of the stations at another time in 1974 is shown in Tables Al, A2, and A3.

After a significant reduction of speed between 1973 and the period of a voluntary 55 mph speed limit and a further reduction during the beginning of the mandatory 55 mph speed limit (refer to Traffic Speed Report No. 92, JHRP), no further significant changes have occurred. The speed characteristics during May-June 1975 were about the same as those obtained earlier in June-August 1974 and in May 1974. No trend of increase in travel speeds is as yet apparent under the 55 mph maximum speed limit. Due to the limited speed data available, under the 55 mph speed limit, regression analysis was not performed.



TABLE Al: AVERAGE SPEEDS ON INTERSTATE HIGHWAYS

	May-June 1975	June-Sept. 1974	May 1974
Passenger Cars:			
Indiana	57.4	58.3	59.96
Non-Indiana	57.4	59.3	59.76
All Passenger Cars	57.4	58.7	59.92
85 Percentile (all)	60.9	62.6	62.96
Trucks:			
Less than 5000 lbs.	56.6	56.7	58.00
5000 lbs. or more	56.7	56.4	57.00

TABLE A2: AVERAGE SPEEDS ON OTHER FOUR-LANE HIGHWAYS

	May-June 1975	June-Sept. 1974	May 1974
Passenger Cars:			
Indiana	58.6	58.0	56.74
Non-Indiana	58.4	57.9	55.87
All Passenger Cars	58.6	58.0	56.62
85 Percentile (all)	63.3	63.1	62.38
Trucks:			
Less than 5000 lbs.	56.9	56.8	55.32
5000 lbs. or more	55.4	54.4	53.22

TABLE A3: AVERAGE SPEEDS ON TWO-LANE HIGHWAYS

	May-June 1975	June-Sept. 1974	May 1974
Passenger Cars:			
Indiana	57.1	56.8	58.70
Non-Indiana	57.7	55.9	57.14
All Passenger Cars	57.1	56.7	58.66
85 Percentile (all)	62.3	61.8	62.77
Trucks:			
Less than 5000 lbs.	55.6	55.3	55.86
5000 lbs. or more	53.6	54.5	53.89

APPENDIX

Speed Data (Tables 1 to 10)

Previous Observation (Speed Report No. Partly Cloudy Weather 3.3 miles south of S.R. 18 8-5-74 Portland Cement Concrete Date Time Last Location Type of Surface Highway I-69 10:45-3:20 5-15-75 Observation Date Time No. of Lanes This Station

92)

09.69 93.39 Pres-0.0 29.52 lbs. 0.0 4.41 0.00 96.90 .685 00 0000 00.00 0.00 0.00 56.84 ent 57.0627 9 23 >5000 98.63 75.34 97.26 Last 28.77 100.0 0.00 0.00 55.80 56.90 0.00 57.92 4.438 73 96.74 31.52 92.39 76.09 .9 56 76 Pres 5 583 0.00 0.00 0.00 56.82 <5000 lbs. ent 56.7 TRUCKS 92 48 2.86 28.57 88.57 0.0 0.0 0.001 55.54 0.0 0.0 0.00 100.0 100.0 Last 0.00 55.21 100.0 55.94 35 9[93.10 11:20-1:10 p.m 0.63 71.47 56.99 000.00 56.90 4.953 0.0 0.0 0.00 100.0 56.80 Pres ent 319 152 167 A11 98.15 2.78 0.0 28.70 79.63 99.07 100.0 Last 56.46 100.0 100,00 55,59 0.00 4.107 57 33 108 54 Non-Indiana 93.68 98.42 70.53 .05 23.68 99.47 99.47 Pres-58,14 57.33 0.00 0.00 0.0 69 99 ent 190 106 99.18 88.52 53.20 64 59.22 0.0 100.0 59.26 100.0 0.001 Last 0.0 100.0 59.31 122 28 64 CARS 65.32 93.06 99 78 11 66 57.85 0.0 0.00 0.00 0.00 57.78 235 57.91 Pres 4.587 ent Indiana 212 447 PASSENGER 0.00 58.03 4.682 8.99 98.73 2.53 53.29 100.0 100.0 57,61 90.51 58.41 Last 0.0 0.0 158 9/ 82 93.25 66.88 69 66 06.86 99.84 Pres-0.0 57.69 0.0 4.699 0.00 0.00 57.97 ent 318 319 637 0.0 58.93 89.64 A 6.43 98.93 58,34 100.0 Last 58.56 0.00 100.0 0.00 58 79 0.0 4.521 280 140 140 of vehicles obs m.p.h. Average speed No. of vehicles obs No. of vehicles obs 24 m p.h. m p h 39 m.p.h. m.p.h. m.p.h. m.p.h. m.p.h. m.p.h. m.p.h. 79 m.p.h. m.p.h. m.p.h. m.p.h. Ave. speed (m.p.h. Standard deviation OBSERVATION Average speed 44 49 59 64 69 84 89 grileveling at or less vehicles 30 No. pug Vehicles pug IIA

Last Previous Observation (Speed Report No. 92) Clear Weather Location 1.0 mile east of Post Road 8-6-74 Type of Surface Portland Cement Concrete Date Time Highway I-74 11:40-4:25 5-19-75 This Observation
Date 5-19-75
Time 11:40-4 No. of Lanes Station

			P/	SSENG	PASSENGER CARS					TRUCKS	CKS		
		A11	1	Ind	Indiana	Non-I1	Non-Indiana	A1		<5000	lbs.	>5000	1bs.
			Pres-		Pres-		Pres-		Pres-		Pres-		Pres-
OBSEI	OBSERVATION	Last	ent	Last	ent	Last	ent	Last	ent	Last	ent	Last	ent
No. of ve	of vehicles obs.	284	799	206	619	78	180	109	422	54	218	55	204
Ave. speed	ed (m.p.h.)	58.58	57.08	58.36	56,97	59,14	57,43	58,17	56,39	57.72	56,48	58,60	56.29
ndard	Standard deviation	4.422	4.350	4.370	4.277	4,535	4.585	5,490	4,688	6.772	4.835	3,857	4.536
	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SS	29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Э.	34 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ī	39 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.92	0.24	0	0.46	1.82	0.0
10	44 m.p.h.	0.35	0.38	0.49	0.32	0.0	0.56	1.83	0.47	1.85	0	1,82	0.0
	49 m.p.h.	1.41	3.88	1.94	4.04	0.0	3,33	3.67	6.87	5.56	7.80	1,82	5.88
le at	54 m.p.h.	15.49	25.41	16.99	26.17	11.54	22,78	22.02	30,33	က	30	7.27	29,90
	59 m.p.h.	61.62	71.96	63.11	72.05	57,69	71.67	66,93	78,44	62.96	75.69	70.91	81.37
	64 m.p.h.	91.55	_	92.23		89.74	93,89	89,91	95.97	83,33	95.41	96.36	96.57
ŢĮ	69 m.p.h.	98.24	99.65	98,54	99.84	97.44	98.89	97.25	99.29	94.44	99,54	100.0	99,02
	74 m.p.h.	99,30	100.0	99.51	100.00	98.72	100.001	99.08	99.76	98.15	100.00	100.0	99,51
	79 m.р.h.	100.0	100.0	100.00	100.00	100.001	100.001	100.00	99.76	100.0	100.00	100.0	99,51
	84 m.p.h.	100.0	100.0	100.00	100.00	100,001	100.00	100.00	100.0	100.0	100.00	100.0	100.0
	89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100,00	100.0	100.0	100.0	100.0	100.0
of ve	No. of vehicles obs.	142	355	86	265	44	06	54	184	27	16	27	93
Average	speed	58.77	56.20	58.32	92	59.80	.02	57,63	54.71	57.33	54.45	57.93	54.99
of ve	vehicles obs.	142	444	108	354	34	90	55	238	27	127		111
Average	speed	58.38	57.77	58.41	57.76	58.29	57.84	58.69	57.69	58.11	57.96	159.25	57.39



TABLE 3 SPEED DATA

	Station	r.	Highway	, U.S. 31	31	Lo	Location 1.2 miles south of U.S. 38	1.2 m	iles so	uth of 1	J.S. 38				
	No. of Lanes	anes 4	. (1	• =	Surface		Asphalt Concrete	oncrete			¥e	Weather	Partly Cloudy	Cloudy	
	Ţ	This Observat Date 5-	ion 14-75 :25-2:50	D.m.		1	I	Last Pr	Previous Date 6-2 Time II:	us Observ 6-20-74 11:50-2:15	rvatio	Observation (Speed Report No. 02-74:15 p.m.	ed Repo	ort No.	92)
		1				ı									
					P/	ASSENG	PASSENGER CARŞ					TRUCKS	KS		
				A11	-	Ind	Indiana	Non-I	Non-Indiana	A11	1	<5000	lbs.	> 5000	lbs.
					Pres-		Pres-		Pres-		Pres-		Pres-		Pres-
	OBSE	OBSERVATION		Last	ent	Last	ent	Last	ent	Last	ent	Last	ent	Last	ent
	No. of ve	of vehicles obs			647	248	295	32	85	139	316	31	147	108	169
		ed (m.p.h.)		18.89	58.43	58.80	58,35			55.53	56.47	57.23	00	55.05	56.01
	Standard	deviation		5.120	5.153	5.069	5.218	5,587	4.698	5.163	5.916	5.045	6.771	5.116	5.031
		24 m.p.h		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SS	29 m.p.h.		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	. 6			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
S	ľ	1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.63		1.36	0.0	0.0
9]	10	44 m.p.h.		0.71	0.31	0.40	0.36	3.13	0.0	1.44	2.53		2.04	1.85	2.96
[5		49 m.p.h.		3.21	4.02	3.23	4.45	3.13	1.18	12.23	10.13		10.88	14.81	9.47
ŢЧ	l e	54 m.p.h.	0	16.79	20.71	17.74	21.89	9.38	12.94	43.17	35.76		35.37	44.44	36.09
9/		59 m.p.h		57.14	59.04	57.26	58.72	56.25	61.18	77.70	70.89	- 1	64.63	79.63	76.33
	lu : Ų	64 m.p.h	٠	86.79	89.34	86.29	89.68	90.63	87.06	96.40	93.35	- 6	89.12	99.07	97.04
II		4.d.m 69	4	98.76	97.37	97.98	97.51	88.96	96.47	100.0	98.10	_	95.92	0.00	100.0
A	91	74 m.p.h.		99.64	99.54	100.0	99.47	96.88	100.00	100.0	99.37	100.0	98.64	0.00	100.0
	(B)	79 m.p.h.		100.0	100.0	100.0	100.0	100.00	100.0	0.001	100.0	100.0	100.0	100.0	100.0
		84 m.p.h		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.00	100.0	100.0
		4.d.m 68	•	100.0	100,0	100.0	100.0	100.0	100.0	100.0	100,0	100.0	100.0	100.0	100.0
рu	No. of	vehicles obs.	S.		312	119		21	32	70	158			54	85
B	Average	speed		76	59.02	58.72	9/	59.00	59.47	56.97	57.42	96	./3	56,33	57.15
ρι	No. of	vehicles obs	S.	140	335	129	282	-	53	69	158	18	74	54	84
BI	Average	speed		58.85	57.88	58.87	57.74	58.64	64	54.07	55.52 60.17	60.17	56.28	53.76	54.85



TABLE 4 SPEED DATA

No. of Lanes This Ob					,								
	4	Type of	Surface	ł	Asphalt Concrete	ncrete			We	Weather_	Partly Cloudy	Cloudy	l
	Observation Date 5-13-75	Ľ			I	Last Pr	<u>.</u> 0		rvatio	Observation (Speed Report No.	d Repo	rt No.	95)
Ţ	Time 10:00-3:30	3:30				Ξ	Time	9:20-2:05 p.m	5 р.ш.		1 1		
			PA	SSENGI	PASSENGER CARS					TRUCKS	KS		
		A1	1	Ind	Indiana	Non-Ir	Non-Indiana	A1	1	0005>	lbs.	>5000	lbs.
			Pres-		Pres-		Pres-		Pres-		Pres-		Pres-
OBSERVATION	N	Last	ent	Last	ent	Last	ent	Last	ent	Last	ent	Last	ent
No. of vehicles	s obs.	280	328	259	307	21	21	108	147	09	92	48	55
eq	(m.p.h.)	56.56	58.81	56.67	59.01	55.19	55.90	53.14	55.39	54.35	56.64	51.62	53.29
Standard deviation	tion	5.752	6.840	5.744	906.9	5.810	5.078	6.894	7.302	5.883	7.430	7.781	6.632
	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	m.p.h.	0.0	0.30	0.0	0.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	m.p.h.	0.0	0.30	0.0	0.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	m.p.h.	0.36	0.61	0.39	0.65		0.0	2.78	3.40		1.09	4.17	7.27
	m.p.h.	2.14	1.22	1.93	1.30		0.0	12.96	08.9		5.43	22.92	9.09
49	m.p.h.	8.21	5.18	7.72	4.89		9.52	24.07	18.37		15.22	35.42	23.64
54	m.p.h.	36.07	23.17	35.52	22.48		33,33	54.63	42.86	23	38.04	56.25	50.91
59	m.p.h.	70.17	57.01	70.27	55.70	80.95		84.26	73.47	81.67	66.30	87.50	85.45
	m.p.h.	92.50	84.76	92.28	83.71	95.24	100.00	97.22	91.16		89.13	97.92	94.59
69	m.p.h.	98.93		98.84	91.86		100.001	100.0	97.96	1	96.74	100.0	100.0
74	m.p.h.	100.0	98.48	100.0	98.37	100.00	100.00	100.0	99.32	100.0	98.91	0.001	100.0
79	m.p.h.	100.0	99,39	100.0	99,35	100.001	100.00	100.0	99.32	100.00	98.91	100.00	100.0
±± 84	m.p.h.	100.0	100.0	100.0	100.0	100.001	100.0	100.0	99.32		98.91	100.0	100,0
m 68	m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of vehicles	s obs.	140	193	127	181	13	12	54	79	29	51	25	28
Average speed		56.40	59.20	56.24	59.37	57.92	56,67	54.30	57.29	55.90	57.37	52.44	54.14
No. of vehicles	s obs.	140	135	132	_	8		54	89	31	VIII.	22	27
Average speed		56.72	58.25	57.08	61	50.75	54.89	51.98	53.18	52.90	55.73	50.74	49.30



TABLE 5 SPEED DATA

S	Station 9	Highway U.S. 35	35	Lo	Location 1.5 miles east of Junction I-69	1.5 m	iles ea	st of Ju	ınction	I-69			İ
Ž,	No. of Lanes 2	Type of	Surface		Asphalt Concrete	oncrete			We	Weather	Cloudy	2	
	ڄ	ation 6-4-75				Last P.	Previous Date 8-		rvatio	Observation (Speed Report 27-74	d Repo	ort No.	(26
	Time	1:30-3:30 p.m.			٠	H		11:40-2:00 p.m	ш оо		1 1		
			P	PASSENGER	ER CARŞ	S				TRUCKS	CKS		
		A1	1	Ind	Indiana	Non-I	Non-Indiana	A1		<5000	lbs.	>5000	lbs.
			Pres-		Pres-		Pres-		Pres-		Pres-		Pres-
	OBSERVATION	Last	ent	Last	ent	Last	ent	Last	ent	Last	ent	Last	ent
Ž	No. of vehicles obs.	586	550	259	491	27	59	111	270	38	121		149
Ā	Ave. speed (m.p.h.)	56.95	58.38	26.90	58.34	57.41	58.69	54.74	55.63	55.55	57.28		54.29
S	Standard deviation	5.993	5.873	5.944	5.830	6.553	6.262	5.765	6.149	6.110	6.716		5.302
_	J	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
_	29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
_		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S		0.0	0.0	0.0		0.0	0.0	06.0	0.0	0.0	0.0	1.37	0.0
ŢG	44 m.p.h.	0.35	0.91	0.39	1.02	0.0	0.0	4.50	1,48	2.63	1,65	5,48	1,34
οij		8.39	5.45	9,27	5.50	0.0	5,08	11.71	13.70	7,89	60.6	16.44	17.45
Ч	54	33,57	24.73	32,43	_	44.44	- 1	45,05	45,19		36,36	47,95	52,35
əΛ	8	71,33	57.27	71.43	-	70.37	54.24	81,08	75,56	81,58	64,46	80,82	84.56
. 1	- 1	19.161	87.64	91.89	87.58	88.83		97.30	93,33	• 1	86.78	97.26	98.66
11	. [96.50	79.09	96.91	97.15	92.59		99.10	97.04	97.37	94.21	100.00	99,33
A	u	98.95	-	99,23	99.19	96,30	86	99,10	100.0		100.00	100.00	100.0
_	e i	99.65		99,61	100.0	100.0	98.31	99.10	100.0	97.37	100.00	100.00	100.00
		99.62	99.85	99.61	100.0	100.0	98.31	100.0	100.0	100.0	100.00	100.0	100.0
	89 m.p.h.	99.62	100.0	99.61	100.0	100.0	100.0	100.0	100.0	100.0	0.001	100.0	100.0
pu	No. of vehicles obs.	143	295	125	264	18	31	55	152	22	73	33	79
-	rage speed	57.41	58.11	57.29	58.09	58.25	58.29	55,36	56.37	57.23	58.78	54.12	54.15
pu	21	143	255	134	227	6	28	99	118		48		70
	Average speed	26.50	58.69	56.54	58.63	55.78	59.14	54.12	54.67	53.25	55.00	54.47	54.44



TABLE 6 SPEED DATA

		$\overline{}$				-S			50
		. 92			1bs	Pres-	ent	110	52
		ort No			>5000		Last	55	53 04
	Clear	d Repo	1 1	:KS	<5000 lbs. >5000 lbs.	Pres-	ent	162	54 30
	Weather Clear	(Spe		TRUCKS	<5000		Last	53	53 43
icus	Wea	vation	35 p.m.			Pres-	ent	272	53 61
Location 0.7 mile west of Americus		; Obser 6-6-74	12:40-2		A11		Last	108	53 23
le west		Last Previous Observation (Speed Report No. 92) Date 6-6-74	Time 12:40-2:35 p.m.		ndiana	Pres-	ent	46	56 39
U./	ncrete	ast Pr Da	Ξ		Non-Ir		Last	19	54 58
ation	ohalt Co	I		PASSENGER CARS	Indiana Non-Indiana	Pres-	Last ent Last ent Last ent Last ent Last	473	55 73
07	e Ası			SSENGE	Indi		Last	270	55 86
52	Surfac			PA		Pres-		519	55.79
 	Type of Surface Asphalt Concrete		.ш.d		A11		Last ent	289 519 270 473 19 46 108 272 53 162 55 110	55.78
Highway S.K. 23	2 T	Observation Date 5-16-75	10:20-2:20 р.ш.						
ion 12	No. of Lanes	This Observation Date 5-16-	Time				OBSERVATION	No. of vehicles obs	ve. speed (m.p.h.
Station	No.							No.	AVE
				1					

		A11		Indi	Indiana	Non-II	Non-Indiana	A11	1	<5000	<5000 lbs.	>5000	1bs.
			Pres-		Pres-		Pres-		Pres-		Pres-		Pres-
OBSERVATION	N	Last	ent	Last	ent	Last	ent	Last	ent	Last	ent	Last	ent
No. of vehicles obs	s obs.	289	519	270	473	19	46	108	272	53	162	55	110
Ave. speed (m.	(m.p.h.)	55.78	55.79	55.86	55.73	54.58	56.39	53.23	53.61	53.43	54,30	53,04	52,59
Standard deviation	tion	5.280	5.054	5.295	5.154	5.048	3.879	4.948	15.717	4.435	5,847	5,430	5,385
1 24 11	m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59	m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	m.p.h.	0.0	0.39	0.0	0.42	0.0	0.0	0.0	2.94	0.0	2.47	0.0	3,64
44 11	m.p.h.	0.69	1.35	0.74	1.48	0.0	0.0	3.70	6.62	0.0	6.17	7.27	7.27
49	m.p.h.	7.96	90.6	7.41	9.73	15.79	2.17	19.44	19.49	16.98	160.5	21.82	24,55
	m.p.h.	43.25	39.69	43.33	40.59	42.11	30.43	56.48	54.04	60.38	50.62	52.73	59.09
59	m.p.h.	80.28	79.96	80.00	79.28	84.21	96.98	90.74	88.24	90.57	85.19	90.91	92,73
F 64	m.p.h.	94,12	94.99	93.70	94.71	100,001	97.83 1100.0	100.00	98.16	100.0	16.96	100.0	100.0
69	m.p.h.	98.27	99.61	98.15	99.58	100.0	100.00	0.001	99.63	100.0	99.38	100.0	100.0
74	m.p.h.	99.65	99.81	99,63	99,79	100,001	100.00	0.001	100.0	100.0	100.0	100.0	100.0
79	m.p.h.	100.00	100.001	100.00	100.001	100.001	100.00	0.001	100.0	100.0	100.0	100.0	100.0
44 44	m.p.h.	100.00	100.001	100.001	100.00	100.00	100.00	100.00	100.0	100.0	100.0	100.0	100.0
и 68	m.p.h.	100.0	100.001	0.00	100.00	100.0	100.0	0.00	100.0	100.0	100.0	100.0	100.0
of vehicles	s ops.	149	277	136	251	13	26	54	142	23	79	31	63
Average speed		55,54	55.57	55.58	55.44	55,15	56.77	54.09	53,69	53,43	54.65	54.58	52.49
No. of vehicles	es obs.	140	242	134	222	9	20	54	142	23	79	3]	63
Average speed		56.03	56.05	56.15 56.06	56.06	53,33	55,90	52.37	53.52 53.43	53,43	53.98	51.04	52.72

TABLE 7 SPEED DATA

1 28			lbs.	Pres-	ent	431	56.64	4,622	0.0	0.0	0.0	0.0	0.23	5.10	29.70	75.17	94.90	99.54	0.00	99.77	0.00	0.00
1 Stations Weather Observation (Speed Report No. 92			>5000		١,	-	7	4.400 4	0.0	0.0	0.0	-	1.56	5.31			_	6	0.00	\dashv	_	100.00
d Repo		KS		Pres-	\top	-		5.061	0.0	0.0	0.0	0.32	0.97	7.74	-	-	94.52		0.00	100.00	100.0	100.0
Weather ion (Spee		TRUCKS	<5000 lbs.	1	Last	179	56,70	5.593	0.0	0.0	0.0	0.0	0.56	7.26	35.20	73.18	92.18	96.65	99.44	100.001	100.001	100.0
ions Wea				Pres-	١,			4.807	0.0	0.0	0.0	0.13	0.54	6.21	30.23	75.44	94.74		99.87	_	100.001	100.0
Sec Individual Stations It			A11		Last	499	56.47	4.859	0.0	0.0	0.0	09.0	1.20	6.01	32.06	77.76	95.79		99.80	100.0	100.001	100.001
Sec Individua	Date Time		diana	Pres-	ent	370	57.38	4.769	0.0	0.0	0.0	0.0	0.81	4.05	23.24	71.08	93.78	98.65	99.73	99.73	100.0	100.0
Sec.	Ti		Non-Indiana		Last	469	59,26	4.559	0.0	0.0	0.0	0.0	0.0	0.64	13.86	54.58	89.55	98.87	99.57	99.79	100.00	100.0
Location		PĄSSENGER CARȘ	ana	Pres-	ent	1066	57.34	4.429	0.0	0.0	0.0	0.0	0.28	3.75	24.30	69.23	94.56	99.53	99.91	100.9	100.00	100.0
1		SSENGE	Indiana		Last	199	58.29	4.729	0.0	0.0	0.0	0.0	0.30	2.12	19.36	62.03	90.47		99.85	100.00	100.00	100.0
<u>state</u> Surfac		P.		Pres-	ent	1436	57.35	4.517	0.0	0.0	0.0	0.0	0.42	3.83	24.03	69.71	94.36	99.30	98.66	99.93	100.0	100.0
Highway <u>Interstate</u> Type of Surface on			A11		Last	1130	58.69	4.682	0.0	0.0	0.0	0.0	0.18	1.50	17.08	58.94	90.09	97.88	99.73	99.91	100.0	100.0
Highway T_ on																						
	0 0					obs.	.h.)	ion	m.p.h.	m.p.h.	m.p.h.	m.p.h.										
l, 3 LanesThis Observati	Date Time				OBSERVATION	of vehicles obs.	d (m.p.h.	deviation			Į.	39 ш.		49 m.				.ш 69			L	89 m.
Station 1, 3 No. of Lanes _ This Ob					OBSER	No. of ve	W	lard		SS	9		JC	S		e i c	ų:	11	7.6 E	181	41 41 8	

TABLE 8 SPEED DATA

Highway 4-Lanes Autobase Au	Location See Individual Stations ace Weather	Last Previous Observation (Speed Report No. 92) Date Time	PASSENGER CARS TRUCKS	Indiana Non-Indiana All <5000 lbs. >5000 lbs.	- Pres- Pres	191 698	57.98 58.58 57.88 58.35 55.30 56.13 56.81 56.86 54.36	6.270 5.875	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.12 0.0 0.0 0.22 0.0 0.56 0.0 0.0 0.0	.11 0.12 0.0 0.0 0.43	.21 0.23 0.0 0.0 1,72 1.51 1.12 1.26 2.10 1.79	1.61 0.69 1.24 0.0 7.33	6.12 4.60 4.97 2.83 16,59 12.74 9,55 12.55 20.98 12.95	27.50 22.09 25.47 16.98 43.75 38.01	63.05 57.65 62.11 64.15 75.65 71.71 69.66 65	86.90 87.57 87.58 89.62 91,59 92,66 84,83 89,12 95.80	95.81 95.51 96.89 97.17 97.84	99,36 99.08 99.38 100.0 99,35 99,35 99,44 98,74 99,30	99,68 99,77 100.0 100.0 99,78 99,78 99,44 99,58 100.0	
### Highw Date Time	face		PASSENGER CA	1	Pres- ent Last	93.1	57.98	5.775 6.270	0.0		0.10	.21	0.62 1.61	4.41 6.12	21.54 27.50 2	63.05	87.79 86.90	95.69 95.81	99.18 99.36	89.66	0 001 00 00 001
	8 Highw	Observation Date Time		A1	Las			eviation	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	

TABLE 9 SPEED DATA

Pres-3,86 20,46 88,03 5,393 0.00 lbs. 0.0 Last Previous Observation (Speed Report No. 92) ent > 5000 .48 54.49 0.00 97.56 Last 5.525 82.93 100.0 4.47 0.8] 246 0.00 76.33 92.58 Pres-55.58 6.39597.17 .4] 9 <5000 1bs. ent TRUCKS Last Weather 40.93 97.41 99,48 0.0 193 Pres-6.0164.06 49.63 81.92 98.34 100.0 .48 0.00 See Individual Stations 54.62 6.61ent 542 A11 80.64 97.04 98.86 44.42 99.32 54.83 3.87 Last 5.871 99.77 91 0.0 0.0 439 Non-Indiana 98.10 57.69 68.57 92.38 Pres-5.450 99.05 100.0 3.81 25.71 ent 105 Date Time 5.986 43.59 74.36 97.44 0.00 100.0 100.0 85 94.87 55.88 Last .97 PASSENGER CARS Location 5.658 32,68 68.26 98.34 100.0 91.08 0.0 ent Indiana 964 8 2 56.84 90.40 96.47 99.80 Last 70.81 99.61 0.0 Type of Surface Pres-31.99 68.29 98.32 5.638 100.0 0.0 91.21 1069 ent Highway 2-Lane A11 71.18 90.86 96.57 98.77 99.65 99.74 6.292 8 99.82 .14 37.87 Last 8.61 00 This Observation No. of vehicles obs m.p.h. 59 m.p.h. m.p.h. m.p.h. m.p.h. m.p.h. m.p.h. m.p.h. 39 m.p.h. m.p.h. m.p.h. 29 m.p.h. 24 m.p.h m.p.h (m.p.h. Standard deviation Date Time OBSERVATION 34 69 44 49 54 64 No. of Lanes Ave. speed Station traveling at **Jess** IO JΟ vehicles Vehicles IIA

TABLE 10 SPEED DATA

	92)			lbs.	Pres-	914	55.45	5.249	0.0	0.0	0.0	.88	2.30	11.38	39.39	79.65	96.50	99.67	99.89	99.89	100.0	100.0
	rt No.			>5000	1 20 + 20 1	+	14	-	0.0	0.0	.12	1.29	-	14.08	40.73 3		97.07	99.53	99.77 9	100.00	-	100.00
	d Repor	1	KS		Pres-		31	6.148	0.0	0.0	0.0	96.0	2.76	10.94	37.14	No.	92.31	97.48	99.64	98.86		100.00
Weather	Observation (Speed Report No.		TRUCKS	<5000 lbs.	+ 0 0	+	56.23	6.393	0.0	0,18	. 18	.73	2.55	10.55	38.36	73.64	91.27	96.73	60.66	99.64	99.82	100.0
ions	vation			_	Pres-		1.0	5.710	0.0	0.0	0.0	0.92	2.52	11.17	38,32	-	94.50	98.63	99.77	99.89	99.94	100.00
See Individual Stations				A11	1004	1402	55.57	5.995	0.0	0.07	.14	1.07	4.07	12.70	39,80	77.96	94.79	98.43	99.50	98.66	99.93	100.00
Individu	Previous Date	ae H		diana	Pres-	581	57.61	4.928	0.0	0.0	0.0	0.0	0.52	3.79	22.55	69.36	92.77	98.28	99.66	99.66	99.83	100.0
See	Last Pr Da	[]		Non-Indiana	+ 3 0 1	747	58.44	5.181	0.0	0.0	0.0	.13	.54	3.35	21.02	59.30	89.96	97.59	99.46	99.87	100.0	100.0
Location	I		PASSENGER CARŞ	Indiana	Pres-	2899	57.62	5.347	0.0	0.03	0.03	0,14	0.72	5.28	26.42	65.44	91,31	97.93	99.52	99.93	100.0	100.0
			SSENGE	Indi	+ 5 0 1	2613	57.61	5.971	0.0	0.0	. 04	.1	1.07	5.93	29.24	65,82	89,17	96.59	99.23	99.73	99.85	99.89
na Syste Surfac			P/		Pres-	3480	57.62	5.279	0.0	0.03	0.03	0.11	0.69	5.03	25.78	60.99	91.55	97.99	99.54	99.89	99.97	100.0
Highway Indiana System Type of Surface				A11	4 0 0 1	3360	57.80	5.814	0.0	0.0	.03	.12	0.95	5.36	27.41	64.38	89,35	96.82	99.29	99,76	99.88	99.91
Highwa	uo																					
21,6,8,	This Observati Date	ı me			100	of vehicles obs.	(.h.h.)	deviation	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.	m.p.h.						
1,3,5 Lanes	rhis O				MOLENNATION	vehicl	eed (m	d devi	1.	l l			44	49		29	64	69	74	79	84	88
Station 1,3,5,8,9,12 No. of Lanes	•				1340	No. of		Standard		SS	Э		10	se		οį	ų		91	191	41 11 8	
												S	j e	2	ŗЧ	ÐΛ		ΙŢ	A			



٠.	
	Passenger Cars (P.C.)
Interim Quarterly Reports	Monitoring of Speed (Statistical Summary)
	.:

Passenger Cars (P.C.)	June 30, 1975
Monitoring of Speed Statistical Summary)	Calendar Quarter Ending: June 30
Mon (Sta	tato: Indiana
•	Stal

Monitorin (Statistic	Monitoring of Speed (Statistical Summary)		Pa	Passenger Cars (P.C.)		
	Calendar Quarter Ending: June 30, 1975	arter Ending	: June 30	1975	•	
					Percent of)ŧ
Frequency of			;	85th	Motorists	m
Monitoring	Duration	Average	Median	Percentile	Exceeding	7,
During Quarter	of Monftoring	Speed (MPH)	Speed (MPH)	Speed (NPH)	55 60 65 MPH MPH MPH	65 krh
_	4 hours each location					
•		57.35	56.65	60.85	69.521.6	4.1
-						
once each loca t ion	4 hours each location					
		58.56	58.10	63.30	73.582.7	10.2
once each location	3 1/2 hours each location	57.12	56.50	62.25	61 50 G	7 0
		-				

Monitor Locations

Miles

2

Interstate Rural

~

lanc divided rural

Other multi-

Interstate Urban

lane divided Other multi-

urban

2

Undivided Rural

9

State Total

Undivided Urban

Number of

18

	(T.)	June 30, 1975
Interim Quarterly Reports	Monitoring of Speed (Statistical Summary)	Calendar Quarter Ending: June 30, 1975
	÷	tato: Indiana
		tato:

State: Indiana

		Number of	Frequency of Monitoring	Duration	Average	Median	85th Percentile		£.
·	Miles	Monitor Locations	During Quarter	of Monitoring	Speed (MPH)	Speed (MPH)	Speed (NPH)	55 60 65 NPH NPH NPH	5 PH
Interstate Rural		2	once each location	4 hours each Iocation	56.61	56.20	60.70	62.917.2 3.1	3.1
Interstat e Urban			·						
Other mult1 - . lane divided rural		. 2	once each location	4 hours each location	56.13	56.10	61.65	57.322.0 5	5.4
Other mult1- lane divided urban		·						1	
Undivided Rural	·	2	once each location	3 1/2 hours each location	54.62	54.20	59.80	44.314.4 3	3.9
Undivided Urban		·			-		-	J	·
						_			

55.60

55.86

State Total

			Interim Quar	Interim Quarterly Reports		A11 Ve	All Vehicles	
	· .	:	Monitorin (Statistic	Monitoring of Speed (Statistical Summary)				
	State:	o: Indiana		Calendar Quarter Ending: June 30, 1975	rter Ending	: June 30	., 1975	
		Number	Frequency of	Duration	Average	Median	85th Percentile	Percent of Motorists Exceeding
	Miles	Monitor Locations	During Quarter	of Monitoring	Speed (MPH)	Speed (MPH)	Speed (NPH)	1
Interstate Rural		2	once each location.	4 hours each location	57.10	56.50	60.90	57.220.1 3.8
Interstate Urban								
Other multi lanc divided rural		. 2	once each location	4 hours each location	57.73	57.40	62.80	68.329.3 7.6
Other mult1- lane divided urban		·				·		
Undivided Rural		2	once each location	3 1/2 hours each loca- tion	56.28	55.80	61.80	55.721.5 6.0
Undivided Urban		·						
State Total		. 9			57.03	56.50	61.60	
						•		



